

CLAIMS

[1] A process for preparing a cancer cells transplanted animal comprising the steps of preparing a cell culture support coated on a surface with a polymer the hydration force of which changes in a temperature range of 0-80°C, then cultivating cancer cells on the support in a temperature region where the polymer has weak hydration force, thereafter adjusting the culture solution to a temperature at which the polymer has a stronger hydration force, whereby the cultured cancer cells are detached, and transplanting the detached cancer cells to a specified site of an animal on which transplantation is to be performed.

[2] The process for preparing a cancer cells transplanted animal according to claim 1, wherein the detached cancer cells are in a sheet form.

[3] The process for preparing a cancer cells transplanted animal according to claim 2, wherein the cancer cells sheet to be transplanted is prepared in a specified shape of a specified size so that the size and/or shape of the cancer tissue in the animal is controlled.

[4] The process for preparing a cancer cells transplanted animal according to any one of claims 1-3, wherein the cancer cells are detached from the cell culture support without being treated with a proteolytic enzyme.

[5] The process for preparing a cancer cells transplanted animal according to any one of claims 1-4, wherein a carrier is placed in intimate contact over the cultured cells at the

end of cultivation and the cells are detached intact together with the carrier.

[6] The process for preparing a cancer cells transplanted animal according to any one of claims 1-5, wherein the cancer cells are of a transplantable cell line.

[7] The process for preparing a cancer cells transplanted animal according to any one of claims 1-5, wherein the cancer cells of an untransplantable cell line.

[8] The process for preparing a cancer cells transplanted animal according to claim 7, wherein the untransplantable cell line is MGT-40, MGT-90, CS-C9 or CS-C20.

[9] The process for preparing a cancer cells transplanted animal according to any one of claims 1-5, wherein the cancer cells are collected from a living tissue.

[10] The process for preparing a cancer cells transplanted animal according to any one of claims 1-9, wherein no more than 8×10^5 cells are transplanted.

[11] The process for preparing a cancer cells transplanted animal according to any one of claims 1-10, wherein the polymer the hydration force of which changes in a temperature range of 0-80°C is poly(N-isopropylacrylamide).

[12] The process for preparing a cancer cells transplanted animal according to any one of claims 1-11, wherein the model animal for carcinogenesis is a nude mouse, a rat, a mouse, a guinea pig, or a rabbit.

[13] A cancer cells transplanted animal prepared by the process according to any one of claims 1-12.

[14] A method of selecting an anti-tumor agent comprising

the steps of administering a test substance to an animal before and/or after transplanting cancer cells in the process of preparing a cancer cells transplanted animal by the process according to any one of claims 1-12 and evaluating the effect of the administered test substance on tumor formation.